

REMARKS/ARGUMENTS:

The above-identified patent application has been amended and Applicants respectfully request the Examiner to reconsider and again examine the claims as amended.

Claims 1-19 are pending in the application. Claims 1-19 are rejected. Claims 1, 8, 13, 14, 16, and 18 are amended herein.

In accordance with the revised provisions of 37 C.F.R. §1.121(c) as enacted on July 30, 2003, a marked up version of the claims is provided hereinabove.

Before discussing the rejections set forth in the instant office action, Applicant would like to make of record aspects of a telephone interview which took place on November 5, 2003. The term "software component" was discussed in view of the present application (Claim 1) and in view of a cited Guheen et al. reference further discussed below. The term "container" was also discussed in view of the present application (Claim 16), Guheen et al., and a cited Gross et al. reference. No agreement was reached as to particular claim amendments. However, it is Applicant's belief that agreement was reached as to the meaning of the terms "software component" and "container" as used by the Applicant in Claims 1 and 16. Applicant would like to thank the Examiner Steelman for the courtesy extended to the Applicant during the telephone interview on November 5, 2003.

The Rejections Under 35 U.S.C. §102(e)

The Examiner rejects Claim 1-7, 9, 12-15, and 19 under 35 U.S.C. §102(e) as being anticipated by Guheen et al. (U.S. Patent number 6,473,794).

Applicants have amended Claim 1 herein to recite "...receiving, by a service provider, at least one software component from a customer, wherein the at least one software component

includes software instructions." Support for this amendment can be found at page 9, lines 19-20, and at page 4, line 30 to page 5 line 1.

Applicants submit that Guheen et al. neither describes nor suggests "...receiving, by a service provider, at least one software component from a customer, wherein the at least one software component includes software instructions," as set forth in Claim 1.

As an initial matter, Applicants respectfully direct the Examiner's attention to page 3, lines 4-6, where it is stated "[h]owever, it should be appreciated that objects created in other languages (also known as software components) might be used and could be tested in the same manner as described herein." Therefore, Applicants use the term "software components" to mean software objects. As is known in the art, software components, i.e., software objects, include software instructions.

Applicants have amended Claim 1 as described above, to recite "... wherein the at least one software component includes software instructions." In view of the above remarks, Applicants submit that the amendment to Claim 1 does not add any new limitation, but rather the amendment was made merely to improve clarity and to move the case forward.

The present invention provides that at least one software component, for example, in the form of Enterprise JAVABeans™ 300a-300c (FIG. 1), also referred to as EJBs, is uploaded to an application service provider (ASP), for example, the application service provider 320 of FIG. 1. It is stated at page 5, lines 12-13 that "[a]pplication service provider (ASP) 320 provides a service to allow testing of the EJBs 330A...300C." Also, at page 9, lines 18-19 it is stated that "[t]he developer would transfer the bean or beans to be tested to the ASP by uploading the .jar files for these EJBs." Thus, software developed by a developer (e.g., 320 FIG. 1) is provided to the application service provider 320, which tests the software. It should be understood that the claimed software component, i.e. software code, is received by the service provider (e.g., uploaded) and tested at the service provider. With this particular arrangement, the present invention provides "...easy testing of software objects..." (page 4, line 9)

In contrast, Guheen et al. merely describes a pictorial representation of a network and indicia coding of the pictorial representation. Referring to FIG. 1 of Guheen et al., a pictorial representation of a network system is provided at step 10. Steps 12-30 provide indicia coding on the pictorial representation of the network system. Notably, step 30 provides "indicia coding the components of the system in order to convey a manner in which the components of the system are to be tested." The indicia coding of step 30 is described in Figs. 19 and 20 discussed below.

Applicants also understand Guheen et al. to describe, beginning at column 166, line 25, a web architecture framework (WAF), "...that secures, administers, and audits electronic information use." (column 166, lines 37-38) The WAF supports "...various features such as an electronic commerce component..., a content channels component..., an administrative component..., a customer relationship management component..., a content management and publishing services component..., an education related services component..., or a web customer service component..." (column 166, lines 29-35) Each of the above components are described by Guheen et al. (column 175, line 45 to column 295, line 18)

Applicants submit that the WAF described by Guheen et al. does not provide software instructions uploaded to a testing service as in the present invention. For example, at column 175, lines 49-55, Guheen et al. describes "[v]arious features are included such as allowing purchase of products and services via a shopping catalog in operation 1500. As an option, a virtual shopping cart may be provided. Further in operations 1502 and 1504 data, i.e., specifications, details, etc., relating to the products and services are displayed along with a comparison between different products and services." Therefore, Applicant concludes that the "[d]ata relating to needs of a user..." described by Guheen et al. at column 175, lines 56-57, is data associated with product needs in a web product ordering scenario, not software instructions as recited in Claim 1. Applicants submit that data displayed to a user as in Guheen et al. is distinctly different than the claimed "...at least one software component...wherein the at least one software component includes software instructions," of the present invention.

Applicants further submit that Guheen does not describe "[a] method of providing a software testing service..." as recited in Claim 1. In contrast, as described above, Guheen et al.

merely describes a pictorial representation of a network for which "components" are indicia coded, for example, to provide a test plan. Guheen et al. also describes the web architecture frameworks (WAFs), for example, a web purchasing system.

In her Response to Arguments, the Examiner uses Figs. 19 and 20 of Guheen et al., stating that these figures suggest that "components are tested in a networked commerce environment." Applicants agree that testing is mentioned in Figs. 19 and 20, however, the testing of step 61 is described only as "indicia coding the components of the existing network framework in order to convey a plan by which the components of the system to be tested." Step 61 is expanded in Figure 20, in which step 61b is described only as "selecting a plurality of components for testing based on the plan." The next step 61c recites "indicia coding the selected components on the pictorial representation." Guheen et al. does not describe or suggest the instant invention for which software components are uploaded to a testing service.

In view of the above, Applicants submit that Claim 1 is patentably distinct over Guheen et al.

Claims 2-7, 9, 12-15, and 19 depend from, and thus include the limitations of Claim 1. Thus Applicants submit that Claims 2-7, 9, 12-15, and 19 are allowable over Guheen et al. generally for the reasons discussed above in conjunction with Claim 1.

For substantially the same reasons described above in conjunction with Claim 1, it is submitted that Claims 5-7 are further patentably distinct since Guheen et al. neither describes nor suggests "...said step of receiving the at least one software component..." as set forth in Claims 5-7.

Claim 9 depends from and thus includes the limitations of Claim 8. Claim 8 is not rejected by the Examiner under 35 U.S.C. §102(e) in view of Guheen et al. Therefore, Applicants submit that Claim 9 is further patentably distinct over Guheen et al. Also, for substantially the same reasons described above in conjunction with Claim 1, Applicants submit

that Claim 9 is further patentably distinct since Guheen et al. neither describes nor suggests "...said step of receiving the at least one software component..." as required by Claim 9.

Claims 13 and 14 are emended herein merely to comply with strict antecedent basis, requiring ".... said at least one software component... ."

In view of the above, Applicants submit that the rejection of Claim 1-7, 9, 12-15, and 19 under 35 U.S.C. §102(e) should be removed.

The Rejections Under 35 U.S.C. §103(a)

Guheen et al. in View of Gross et al.

Claims 8, 10, 11, 16, and 17 are rejected under 35 U.S.C. §103(a) as being unpatentable over Guheen et al. in view of Gross et al. (US patent number 5,371,883). The Examiner asserts that Guheen et al. discloses a system for testing components of web-based frameworks. The Examiner suggest that Guheen fails to disclose "...details on receiving directions regarding the type of testing to be done..." and relies on Gross et al. to teach the providing details regarding testing in a networked environment. The Examiner concludes that "...it would have been obvious, to one of ordinary skill in the art...to have modified Guheen's invention to test components of a web based framework by including Gross' invention..." for providing detailed directions for testing.

As the Examiner is aware, and as found in MPEP §2142, in order to establish a prima facie case of obviousness "...the prior art reference (or prior art references when combined) must teach or suggest all the claim limitations." Applicants respectfully submit that the Examiner has not met this burden in order to establish prima facie obviousness.

Applicants submit that Guheen et al. neither describes nor suggests "...receiving, by a service provider, at least one software component from a customer, wherein the at least one software component includes software instructions," as required by Claims 8, 10, 11, 16, and 17.

As an initial matter, Applicants again respectfully direct the Examiner's attention to page 3, lines 4-6, where it is stated "[h]owever, it should be appreciated that objects created in other languages (also known as software components) might be used and could be tested in the same manner as described herein." Therefore, Applicants use the term "software components" to mean software objects. As is known in the art, software components, i.e., software objects, include software instructions.

However, Applicants have amended Claims 8, 10, 11, 16, and 17 by amending Claim 1 to recite "... wherein the at least one software component includes software instructions." In view of the above remarks, Applicants again submit that the amendment to Claim 1 does not add any new limitations, but rather the amendment was made merely to improve clarity and to move the case forward.

The present invention provides that at least one software component, for example, in the form of Enterprise JAVABeans™ 300a-300c (FIG. 1), also referred to as EJBs, is uploaded to an application service provider (ASP), for example the application service provider 320 or FIG. 1. It is stated at page 5, lines 12-13 that "[a]pplication service provider (ASP) 320 provides a service to allow testing of the EJBs 330A...300C." Also, at page 9, lines 18-19 it is stated that "[t]he developer would transfer the bean or beans to be tested to the ASP by uploading the .jar files for these EJBs." Thus, software developed by a developer (e.g., 320 FIG. 1) is provided to the application service provider 320, which tests the software. It should be understood that the claimed software component, i.e. software code, is received by the service provider (e.g., uploaded) and tested at the service provider. With this particular arrangement, the present invention provides "...easy testing of software objects..." (page 4, line 9)

In contrast, Guheen et al. merely describes a pictorial representation of a network and indicia coding of the pictorial representation. Referring to FIG. 1 of Guheen et al., a pictorial representation of a network system is provided at step 10. Steps 12-30 provide indicia coding on the pictorial representation of the network system. Notably, step 30 provides "indicia coding the components of the system in order to convey a manner in which the components of the system are to be tested."

Applicant also understands Guheen et al. to describe, beginning at column 166, line 25, a web architecture framework (WAF), "...that secures, administers, and audits electronic information use." (column 166, lines 37-38) The WAF support "...various features such as an electronic commerce component..., a content channels component..., an administrative component..., a customer relationship management component..., a content management and publishing services component..., an education related services component..., or a web customer service component..." (column 166, lines 29-35) Each of the above components are described by Guheen et al. (column 175, line 45 to column 295, line 18)

Applicants submit that the WAF described by Guheen et al. does not provide software instructions uploaded to a testing service as in the present invention. For example, at column 175, lines 49-55, Guheen et al. describes "[v]arious features are included such as allowing purchase of products and services via a shopping catalog in operation 1500. As an option, a virtual shopping cart may be provided. Further in operations 1502 and 1504 data, i.e., specifications, details, etc., relating to the products and services are displayed along with a comparison between different products and services." Therefore, Applicant concludes that the "[d]ata relating to needs of a user..." described by Guheen et al. at column 175, lines 56-57, is data associated with product needs in a web product ordering scenario, not software instructions as recited in Claim 1. Applicants submit that data displayed to a user as in Guheen et al. is distinctly different than the claimed "...at least one software component...wherein the at least one software component includes software instructions," of the present invention.

Applicants submit that Gross et al. fails to overcome the above deficiencies in Guheen et al. Gross describes a software testing environment in which a control program residing in a control machine forwards instructions to test programs residing in test machines. The instructions are executed on the test machines and results are reported back to the control machine. A user can specify "values" column 4, lines 46-49. The "values" of Gross et al. are apparently "...values that must be used in any test case..." (column 4, lines 21-22) Software components, i.e., software instructions, are not provided to a service provider as required by Claims 8, 10, 11, 16, and 17 of the present invention.

Furthermore, Applicants submit that if the invention of Guheen et al. were to be combined with the invention of Gross et al. as suggested by the Examiner, the result would not be the claimed invention. The result of such a combination may be a web application framework (WAF) (as in Guheen et al.) in which a user can specify values used in a test case (as in Gross et al.). The combination would not provide the present invention, testing of software components, i.e., software instructions, provided by a testing service.

In view of the above, Applicants submit that Claims 8, 10, 11, 16, and 17 are patentable over Guheen et al. and Gross et al.

Claim 8 is amended herein merely to correct matters of strict antecedent basis. It is submitted that Claim 8 is further patentably distinct over Guheen et al. and Gross et al, whether taken alone or in combination, since the cited references neither describe nor suggest "...said step of receiving the at least one software component further comprises the step of receiving directions regarding the type of testing to be done on said at least one software component," as set forth in Claim 8.

It is submitted that Claim 10 is further patentably distinct over Guheen et al. and Gross et al, whether taken alone or in combination, since the cited references neither describe nor suggest "... said step of receiving the at least one software component further comprises the step of receiving directions regarding how to process results from said testing," as set forth in Claim 10.

Applicants have amended Claim 16 herein to recite "...the step of providing access to multiple containers for testing the performance of said software component in different ones of said multiple containers, wherein each of the multiple containers comprises one or more portions of software code associated with one or more respective application servers." Support for this amendment is given at page 2, lines 18-21. Since the claimed containers were defined in the specification, Applicants submit that the amendment to Claim 16 does not include any new limitation, but rather the amendment was made merely to improve clarity and to move the case forward.



It is submitted that amended Claim 16 is further patentably distinct over Guheen et al. and Gross et al, whether taken alone or in combination, since the cited references neither describe nor suggest a "...step of providing access to multiple containers for testing the performance of said software component in different ones of said multiple containers, wherein each of the multiple containers comprises one or more portions of software code associated with one or more respective application servers," as set forth in Claim 16. As described above, neither Guheen et al. nor Gross et al. describe testing a software component, which is received, i.e., uploaded, as in Claim 1.

It is submitted that Claim 17 is further patentably distinct over Guheen et al. and Gross et al, whether taken alone or in combination, since the cited references neither describe nor suggest "... said step of providing further comprises the step of determining the parameters of the data sets to test a software component by examining the interface of each method in the software component and determining what inputs and outputs must be specified for that software component," as set forth in Claim 17.

In view of the above, Applicants submit that the rejection of Claims 8, 10, 11, 16, and 17 under 35 U.S.C. §103(a) over Guheen et al. in view of Gross et al. should be removed.

Guheen et al. in View of Swoboda et al.

Claim 18 is rejected under 35 U.S.C. §103(a) as being unpatentable over Guheen et al. in view of Swoboda et al. (US patent number 5,841,670). The Examiner asserts that Guheen discloses a system for testing components of web-based frameworks. The Examiner recognizes that Guheen fails to disclose a graphical user interface to test the components, and relies on Swoboda et al. to teach the graphical user interface to test components. The Examiner concludes that "...it would have been obvious, to one of ordinary skill in the art...to have modified Guheen's invention to test components of a web based framework by including emulation using a graphical user interface [of Swoboda]."

For substantially the same reasons described above in conjunction with Claims 8, 10, 11, 16, and 17, Applicants submit that Guheen et al. neither describes nor suggests "...receiving, by a service provider, at least one software component from a customer, wherein the at least one software component includes software instructions," as required by Claim 18.

It is submitted that Swoboda et al. fails to overcome the above deficiency in Guheen et al. Swoboda merely describes emulation devices and techniques used in conjunction with distributed systems. The emulation device distributes common control information to each of a plurality of clock domains. (abstract) Software components, e.g., software instructions, are not received in Swoboda et al. by a service provider as required by Claim 18 of the present invention.

Applicants have amended Claim 18 herein, merely to correct antecedent basis, to recite "... the step of testing selected ones of the at least one software component typically used through a graphical user interface by building test drivers for the selected ones of the at least one software component and testing without the graphical user interface"

Also for substantially the same reasons described above in conjunction with Claims 8, 10, 11, 16, and 17, Applicants submit that Guheen et al. neither describes nor suggests "... receiving, by a service provider, at least one software component from a customer, wherein the at least one software component includes software instructions; testing with said test code said at least one software component " and "... the step of testing selected ones of the at least one software component typically used through a graphical user interface by building test drivers for the selected ones of the at least one software component and testing without the graphical user interface," as required by Claim 18.

Applicants submit that Swoboda et al. fails to overcome the above deficiency in Guheen et al. Software components, e.g., software instructions, are not received and tested in Swoboda et al. by a service provider as required by Claim 18 of the present invention.

In view of the above, Applicants submit that Claim 18 is patentable over Guheen et al. and Swoboda.

Accordingly, Applicants submit that the rejection of Claim 18 under 35 U.S.C. §103(a) over Guheen et al. in view of Swoboda should be removed.

In view of the above amendment and remarks, Applicants submit that Claims 1-19 and the entire case are in condition for allowance and should be sent to issue and such action is respectfully requested.

It is submitted that this amendment places the application in condition for allowance or better form for appeal by restricting the issues on appeal, and thus, entry of this amendment is respectfully requested under the provisions of 37 C.F.R. §1.116.

The Examiner is respectfully invited to telephone the undersigning attorney if there are any questions regarding this Amendment or this application.

Appl. No. 09/645,279  
Reply to Office Action of September 22, 2003

Docket No. EMPIR-020PUS

The Assistant Commissioner is hereby authorized to charge payment of any additional fees associated with this communication or credit any overpayment to Deposit Account No. 500845.

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Respectfully submitted,

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